1 MicroVent: Information on usage and trouble-shooting

Subject	Notes	Possible cause of trouble
Flow measurement	Cables of autozero solenoid valve and expiration valve interchanged Autozero valve not switching	Flow measurement "INOP"
Flow measurement lines	Once compressed-gas supply at MicroVent has been established, red and orange hoses of flow measurement line in unit must not be kinked, as otherwise this could lead to destruction of the pressure gauge, the airway pressure sensor or the differential pressure sensor on the Sensor PCB	Failure of pressure and flow measurement
Safety valves SV2 / SV3	Proper functioning of the safety valves SV2/SV3 is checked by consecutively sealing off the measurement lines at the flow sensor with a pressure gauge. The opening pressure must be > 40 mbar.	
Inspiration socket	When fitting inspiration socket, locking screw must be inserted in countersink provided in insp. socket	Leakage Leakage alarm
Assembly	On assembly, cables inside unit must be routed such that recess for battery compartment is not blocked, as otherwise the connectors for the I:E and MV valve may be pulled out on assembly. If the cables cannot be properly laid, they are to be extended. This may be the case above all with the cables of the PN valve.	Failure of I:E valve Failure of minute volume valve
Minute volume	Leakage in the safety valves SV2, SV3 influences minute volume measurement	Dependence of minute volume on set PEEP value

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Leakage, high-pressure end	Ball seat in high-pressure check valve RV4 leaking Hoses to 3/2-way valve (IPPV/SIMV mode selection switch) interchanged or valve leaking Restrictor R5/R6 outside tolerance Leakage in P-supply sensor connection	Leakage at inlet end only in IPPV setting Leakage on inlet end
Leakage, low-pressure end	Leak in lung demand valve Screw for inspiration socket not inserted in countersink provided Ruptured O-ring at inspiration socket Ruptured hose between MV valve and pneumatic system Ruptured PH valve diaphragm Dust particles in safety valve	Leakage on low-pressure end
PEEP valve	PN valve at I:E valve not switching Check valve RV2, RV7 leaking or sealed off Angle socket at lung demand valve leaking Leak in check valve RV9 to ASB valve Ruptured expiration valve diaphragm Weak PEEP valve spring PH valve crater damaged Screw at stem of PEEP valve not secured	No or insufficient PEEP pressure PEEP pressure outside tolerance Fluctuation in PEEP pressure No PEEP valve adjustment over entire range

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ASB valve	Check valve RV2, RV5, RV7, RV8 leaking or sealed off	No or insufficient ASB pressure
	Restrictor R8 outside tolerance	
	Angle socket at lung demand valve leaking	
	Weak ASB valve spring	ASB pressure outside tolerance
	Screw at stem of ASB valve not secured	No ASB valve adjustment over entire range

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